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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,361	09/24/2001	Masakazu Tanaka	12-007	6343

23400 7590 11/26/2003

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EXAMINER	
WRIGHT, WILLIAM G	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/960,361	TANAKA ET AL.	
	Examin r	Art Unit	
	William G. Wright SR.	1754	

-- Th MAILING DATE of this communication appears on the cov r sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,12,13,15 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,12,13,15 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 12-15 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Beauseigneur et al. '570.

Note the Examples and the claims of the reference.

The applicants argue that the Beauseigneur reference teaches non-catalytic particles and that the instant claims teach catalytic particles.

The applicants' argument is not well taken as the reference teaches that the colloidal particles have catalytic elements on said particles at column 5 line 54 - column 6 line 37. The term "colloidal size" is well defined in this area of the patent and the fact that the well defined particle has catalytic elements on it is also taught at this area of the reference. This rejection is then maintained.

Claims 1, 2, 12 and 13 are rejected under 35 U.S.C. § 102(b) as being anticipated by Komatsu et al. '191.

Note the embodiments and the claims.

The applicants argue that the Komatsu reference fails to disclose a ceramic support having a large number of pores that enable particles of the catalyst to be loaded directly onto a base ceramic substrate. This argument is not well taken as the reference teaches at column 16 line 6 et seq. the ceramic. The teaching of ceramic base materials is specifically found at column 16 line 12. The argument about the catalyst being loaded into the pores of the substrate is also not well taken as instant claims 1, 2, 12 and 13 do not require the catalyst to be loaded into the pores. The only claimed requirement on the subject of the catalyst and the substrate is that the catalyst be on a support and the large number of pores enable the catalyst to be loaded directly onto the base ceramic surface. Nothing whatsoever is claimed that would require the catalyst to be in the pores of the ceramic base, as the applicants argue. This rejection is maintained.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 1-7 and 12-~~15~~ 13, 15 AND 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Beauseigneur et al. '570.

The reference teaches the claimed features to include the applicants' claimed particle size, microcracks, cordierite material and a porous catalyst support. The specific use of the effects is not found in the reference and is inferred from the microcracks found at column 7 et seq. as a way of producing microcracks. The reference teaches the claimed invention to be obvious.

The applicants argue that Beauseigneur fails to disclose or suggest catalyst particles of 100 nanometers or less. The

applicants argue that the reference does not disclose that the colloidal particles are directly held by the pores of the ceramic.

The argument that the catalyst particles are not 100 nanometers or less is not well taken as the teaching of this size catalyst particle is taught at column 5 line 54 - column 6 line 37. The argument that the catalyst particles are not taught by the reference to be held by the pores of the support is not convincing as the instant claims 1-7 and 12-15 do not require the catalyst to be held in the pores of the support as the applicants argue. This rejection is maintained.

Claims 1, 2, 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Komatsu et al. '191.

The reference teaches the use of ultrafine particles of the size of 1 to 10 nanometers. The instant claims teach particles of the size 100 nanometers or less. The reference teaches at column 8 line 13 et seq. the quantum size effect and how the number of atoms and their size is related to this effect. Depending on atomic size there will be a change in the particle size and with this change due to atom size, it will be seen that the particle size will change. The particle size of 100 nanometers and less is taught to be obvious from these teachings.

The claimed invention is obvious from the teachings of the reference.

The applicants argue that the Komatsu reference fails to disclose or suggest a ceramic support having a large number of pores that enable particles of catalyst to be loaded directly onto a base ceramic surface. This argument is not persuasive as the instant claims do not require the catalyst to be loaded into the pores of the substrate. The specific teachings of a ceramic base in Komatsu are found at column 16 line 12. This rejection is maintained.

Claims 1-7 and 12-~~15~~ 13, 15 AND 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Patent Abstracts of Japan 62004441A.

The reference teaches the claimed features of a ceramic support for catalyst compositions with the following features. The teaching of fine cracks of 100 nanometers or less, elements replaced, oxygen and lattice defects and fine pores. Note the claims of the reference.

The specific characteristics of the claimed defects of the ceramic, the number of the pores is also not taught by the reference.

These characteristics are considered by the Examiner to be obvious expedients left to a practitioner in making obvious

adjustments to provide for a better catalyst desired for a specific utility.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7 and 12-~~15~~ 13,15 AND 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of copending application Serial No. 09/961,203. Although the conflicting claims are not identical, they are not patentably distinct from each other because they overlap in scope of subject matter claimed.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The applicants argue that the NO_x absorbent material of the reference is not found in the claims of the instant application.

The applicants also argue that the instant catalyst particles are of a particular size.

The instant file at claim 6 teaches the feature that the constituent elements of the cordierite support are substituted with metal elements having a different valence. The reference teaches at paragraphs [0046] and [0047] that the NO_x absorbent material is defined in the instant claims. The instant claims require, as do the claims of the reference that the pores that may directly support the catalyst be 1000 times the diameter of the catalyst ion, a do the instant claims. This rejection is maintained.

Applicants' arguments filed September 22, 2003 have been fully considered but they are not deemed to be persuasive.

The Examiner's position on the non-persuasiveness for each of the maintained rejections is found with that rejection, in this Office action.

The Examiner has applied a new reference and the applicants' amendments do not require such. Therefore this action is a non-final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William G. Wright, Sr. whose telephone number is (703) 305-7792. The

examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned are (703) 872-9306 for the regular communications and (703) 872-9311 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1495.

W. G. Wright, Sr.:cdc
November 17, 2003

STEVEN BOS
PRIMARY EXAMINER
GROUP 1100